



State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095
(603) 271-3406 FAX (603) 271-7894



May 22, 2002
Letter of Deficiency
DAM #126.09

Mr. Thomas Dutton
City of Keene
580 Main Street
Keene, NH 03431

RE: Three Mile Reservoir, Keene

Dear Mr. Dutton:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that plays a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on October 22, 2001. During this visual inspection and/or file review, the following deficiencies were observed:

- 1 There was a draft operational procedure (O&M) plan in the file;
- 2 There is no approved Emergency Action Plan (EAP) for this dam nor is there a draft on file with DES;
- 3 There were small trees and minor brush observed in the following locations:
 - a. Within the right downstream riprap.
 - b. Along the crest of the right embankment just below the right cutoff wall.
 - c. Along the upstream riprap slope of the dike along Route 10.
 - d. Along the crest, downstream and upstream slope of the small portion of the dike on the western side of Route 10 just west of an existing fence line.
 - e. Within the downstream reach of the overflow spillways.
 - f. Along the crest, downstream and upstream slope of the left earth embankment/abutment.
 - g. Between some of the energy dissipaters at the base of the far left overflow spillway.
 - h. Upstream of the far left overflow spillway.
- 4 There was Beaver debris downstream within the stoplog bay;
- 5 The access fence gate was missing on the left abutment;
- 6 The supports for the fence throughout the crest of the dam, on the left and right concrete sections, were beginning to deteriorate due to grout filled holes not completely filled and collecting water;
- 7 There is seepage at the base of several of the vertical construction joints in both overflow spillways; and
- 8 There was concrete deterioration with shallow voids along the horizontal construction joint, which appeared to be previously patched with a grout cover. It should be noted that deterioration appears to be due to rainwater with possible freeze and thaw conditions.

Letter of Deficiency
Dam #126.09
May 22, 2002
pg. 2

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

September 1, 2002:

1. The draft O&M has been accepted for content. Review and update the attached draft O&M and submit the final copy to our office;
2. Submit the draft EAP to Bethann McCarthy, P.E. the EAP coordinator;
3. Remove the small trees and minor brush observed in the following locations:
 - i. Within the right downstream riprap.
 - j. Along the crest of the right embankment just below the right cutoff wall.
 - k. Along the upstream riprap slope of the dike along Route 10.
 - l. Along the crest, downstream and upstream slope of the small portion of the dike on the western side of Route 10 just west of an existing fence line.
 - m. Within the downstream reach of the overflow spillways.
 - n. Along the crest, downstream and upstream slope of the left earth embankment/abutment.
 - o. Between some of the energy dissipaters at the base of the far left overflow spillway.
 - p. Upstream of the far left overflow spillway;
4. Remove the Beaver debris downstream within the stoplog bay;
5. Replace the access fence gate that was missing on the left abutment;
6. On the left and right concrete crest of the dam grout the supports for the fence;

On a Continual Basis:

7. Monitor the seepage at the base of several of the vertical construction joints in both overflow spillways and repair as necessary; and
8. Monitor the concrete deterioration with shallow voids along the horizontal construction joint, which appeared to be previously patched with a grout cover and repair as necessary.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Letter of Deficiency

Dam #126.09

May 22, 2002

pg. 3

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the top of the previous page.

Sincerely,

COPY

Dale F. Guinn, P.E.
Dam Safety Engineer

Attachments Guideline for an O&M plan, DB8, DB13

cc: Gretchen Rule

Certified # 7049 3400 0002 9773 7665

DFG/was/h:/safety/wendy/lod/126-09lod.doc